

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A modular electrical connector, comprising:
a plug comprising a printed circuit board and a housing for supporting and constraining the printed circuit board so that a portion of the printed circuit board extends from the housing in a first direction, the printed circuit board having a flexible portion, the flexible portion being thinner than a remainder of the printed circuit board and having a first and a second substantially planar surface extending substantially in the first direction so that the portion of the printed circuit board can translate in a second direction in relation to the housing, the second direction being substantially perpendicular to the first direction.

2-4. (canceled)

5. (previously presented) The modular electrical connector of claim 1, further comprising a receptacle and a receptacle housing, wherein the receptacle housing has a first and a second key formed respectively on the first and second sides, the first and second lips have a respective first and second slot formed therein, and the first and second lips engage the respective first and second keys by way of the respective first and second slots when the plug and the receptacle are mated.

6. (previously presented) The modular electrical connector of claim 1, wherein:
the plug can be mounted on an electrical component; and
the plug further comprises a tuning-fork-type contact comprising a first arm, a second arm spaced apart from the first arm, and a pin portion adjoining the first and second arms, the first and second arms contacting opposing sides of the printed circuit board and the pin portion securely engaging the electrical component when the plug is mounted on the electrical component.

7-8. (canceled)

9. (previously presented) The modular electrical connector of claim 1, further comprising a contact mounted on a first side of the printed circuit board, wherein the contact comprises a substantially U-shaped staple.

10. (currently amended) The modular electrical connector of claim 9, wherein the staple has an elongated portion and a first and a second leg adjoining the elongated portion, and the first and ~~the~~ second leg can be mounted on a surface of the printed circuit board so that the elongated portion is spaced apart from the surface.

11. (previously presented) The modular electrical connector of claim 1, wherein: the printed circuit board of the plug has a first plurality of conductive traces formed thereon, the first plurality of conductive traces extending between a first and a substantially perpendicular second edge of the printed circuit board of the plug.

12. (canceled)

13. (previously presented) The modular electrical connector of claim 46, wherein the first contact is electrically and mechanically coupled to the printed circuit board of the receptacle and comprises an angled portion, an elongated portion adjoining the angled portion, and a contact portion adjoining the elongated portion and being spaced apart from at least a portion of the ground contact so that the contact portion and the ground contact opposing sides of the printed circuit board of the plug.

14. (original) The modular electrical connector of claim 13, wherein the contact portion and the ground contact are spaced apart in a direction substantially perpendicular to the printed circuit board of the receptacle.

15. (original) The modular electrical connector of claim 14, wherein the slot formed in the housing of the receptacle is substantially parallel to the printed circuit board of the receptacle.

16. (previously presented) The modular electrical connector of claim 46, wherein a first and a second electrically-conductive trace are formed on opposing sides of the printed

circuit board of the plug, and the first contact and the ground contact electrically contact the respective first and second electrically-conductive traces when the plug and the receptacle are mated.

17. (previously presented) The modular electrical connector of claim 1, further comprising a receptacle, wherein the receptacle comprises a first contact for electrically contacting the contact of the plug when the plug and the receptacle are mated, a second printed circuit board, and a ground comb comprising a ground contact and a mounting tab, the ground comb extending substantially parallel to the second printed circuit board and securely engaging the second printed circuit board by way of a slot formed in the mounting tab.

18. (previously presented) The modular electrical connector of claim 17, wherein the first contact is electrically and mechanically coupled to the second printed circuit board of the receptacle and comprises an angled portion, an elongated portion adjoining the angled portion, and a contact portion adjoining the elongated portion and being spaced apart from at least a portion of the ground contact so that the contact portion and the ground contact contact opposing sides of the printed circuit board of the plug.

19. (previously presented) The modular electrical connector of claim 18, wherein the contact portion and the ground contact are spaced apart in a direction substantially parallel to the second printed circuit board of the receptacle.

20. (previously presented) The modular electrical connector of claim 19, wherein the slot formed in the housing of the receptacle is substantially perpendicular to the second printed circuit board of the receptacle.

21. (original) The modular electrical connector of claim 17, wherein the printed circuit board of the plug comprises a first and a second electrically-conductive trace formed on opposing sides of the printed circuit board, and the first contact and the ground contact electrically contact the respective first and second electrically-conductive traces when the plug and the receptacle are mated.

22. (canceled)

23. (previously presented) The modular electrical connector of claim 1, further comprising a contact, wherein the contact is mounted on a first side of the printed circuit board and the plug further comprises a ground plate mounted on a second side of the printed circuit board of the plug.

24. (previously presented) The modular electrical connector of claim 23, wherein the ground plate is spaced apart from a second side of the printed circuit board.

25. (original) The modular electrical connector of claim 1, wherein the plug comprises a plurality of the printed circuit boards, and a plate mechanically coupled to forward portions of the plurality of the printed circuit boards.

26. (original) The modular electrical connector of claim 25, wherein the plug comprises a first and a second of the plates mechanically coupled to respective upper and lower edges of the forward portions of the plurality of printed circuit boards.

27-32. (canceled)

33. (previously presented) The modular electrical connector of claim 23, wherein the contact is formed by screening dielectric material through a graduated mask to form a rounded contact region on the printed circuit board, and metalizing the contact region.

34. (previously presented) The modular electrical connector of claim 23, wherein the contact is formed by molding a raised area into the printed circuit board, and metalizing the raised area.

35. (previously presented) The modular electrical connector of claim 1, wherein a forward portion of the printed circuit board is substantially contoured.

36. (previously presented) The modular electrical connector of claim 23, wherein the contact comprises one of round wire and a stamped conductor surface soldered and crimped to the printed circuit board.

37. (canceled)

38. (original) The modular electrical connector of claim 1, wherein a forward edge of the printed circuit board is stepped so that a length of an uppermost portion of the printed circuit board is greater than a length of a lowermost portion of the printed circuit board.

39. (previously presented) The modular electrical connector of claim 1, wherein the printed circuit board has an electrically-conductive trace formed thereon and extending along a first and an opposing second surface of the printed circuit board.

40. (previously presented) The modular electrical connector of claim 1, wherein the plug comprises a plurality of first contacts, a plurality of second contacts mechanically coupled to a lower edge of the printed circuit board, and a plurality of electrically-conductive traces each extending between one of the plurality of the first contacts and a respective one of the plurality of second contacts, and the one of the electrically-conductive traces coupled to the one of the first contacts most proximate the lower edge extends to the one of the second contacts most distant from a forward edge of the printed circuit board.

41. (original) The modular electrical connector of claim 1, wherein the printed circuit board has a rib extending from an upper edge thereof, and the housing of the plug has a slot formed in an upper inner surface thereof for receiving the rib.

42. (currently amended) A modular electrical connector, comprising:

a plug comprising a first housing, a first printed circuit board at least partially mounted in the first housing so that a portion of the first printed circuit board extends from the first housing in a first direction and can flex in relation to the first housing in a second direction substantially perpendicular to the first direction, the portion of the first printed circuit board being thinner than a remainder of the first printed circuit board and having a first and a second substantially planar surface, and a contact mounted on the portion of the first printed circuit board; and

a receptacle for mating with the plug and comprising a second printed circuit board, a contact mounted on the second printed circuit board for electrically contacting the contact of the plug when the plug and the receptacle are mated, and a second housing for substantially enclosing the contact of the receptacle, the second housing having a slot formed therein for receiving the portion of the printed circuit board and extending in a third direction substantially perpendicular to the first and second directions when the plug and the receptacle are mated.

43. (original) The modular electrical connector of claim 42, wherein the slot extends between a first and a second side of the second housing, the first housing comprises a first and a second lip extending from the first housing substantially in the first direction, the second housing is positioned substantially between the first and second lips when the plug and the receptacle are mated, and a clearance exists between at least one of the first side of the second housing and the first lip, and the second side of the second housing and the second lip so that the plug is capable of a predetermined range of movement in relation to the receptacle substantially in the third direction.

44. (previously presented) The modular electrical connector of claim 43, wherein the contact of the receptacle comprises an elongated portion extending substantially in the first direction when the plug and the receptacle are mated, and a contact portion mechanically and electrically coupled to the elongated portion and extending substantially in the third direction for contacting the contact of the plug when the plug and the receptacle are mated.

45. (currently amended) A modular electrical connector, comprising:
a plug comprising a housing and a printed circuit board mounted in the housing so that an end portion of the printed circuit board extends from the housing in a second direction and overhangs an edge of the housing, the printed circuit board having a flexible portion formed therein that permits the end portion of the circuit board to deflect in a first direction in relation to the housing, the flexible portion of the printed circuit board being thinner than a remainder of the printed circuit board and having a first and a second substantially planar surface, wherein extending

~~substantially in a second direction~~, the second direction ~~being~~ is substantially perpendicular to the first direction; and

a receptacle for mating with the plug and comprising a housing having a slot formed therein for receiving the end portion so that misalignment between plug and the receptacle causes the end portion to flex in response to contact between the end portion and the housing of the receptacle.

46. (previously presented) A modular electrical connector, comprising:

a plug comprising a printed circuit board, a contact positioned on a portion of the printed circuit board, and a housing for supporting and constraining the printed circuit board so that the portion of the printed circuit board extends from the housing, the printed circuit board having a flexible portion that permits the portion of the printed circuit board to translate in relation to the housing; and

a receptacle for mating with the plug and comprising: a first contact for electrically contacting the contact of the plug when the plug and the receptacle are mated; a housing having a slot formed therein for receiving the portion of the printed circuit board of the plug when the plug and the receptacle are mated; a printed circuit board; and a ground comb comprising a ground contact, the ground comb extending substantially perpendicular to the printed circuit board of the receptacle and securely engaging the printed circuit board of the receptacle by way of a slot formed in the ground comb.

47. (currently amended) A modular electrical connector, comprising:

a plug comprising a printed circuit board, a contact positioned on a portion of the printed circuit board, and a housing for supporting and constraining the printed circuit board so that the portion of the printed circuit board extends from the housing, the printed circuit board having a flexible portion having a first and a second concave surface portion so that the flexible portion has an undulating shape that permits the portion of the printed circuit board to translate in relation to the housing; and

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a receptacle for mating with the plug and comprising a first contact for electrically contacting the contact of the plug when the plug and the receptacle are mated, and a housing having a slot formed therein for receiving the portion of the printed circuit board when the plug and the receptacle are mated.